

AMNDMENTS TO THE SPECIFICATION

Please amend paragraphs [0016] and [0046] in the application as filed to by
replacement paragraph read as follows:

91 [0016] For hydrocarbon feedstocks, the original fresh porous adsorbent particles comprise a narrow size range, such as 16 by 20 Tyler mesh, 20 by 24 Tyler mesh, and 24 by 28 Tyler mesh, within a preferred range of 16 to 45 48 Tyler mesh spherical solids range. Design of the fluidized bed under flow conditions that are anticipated in the intended environment of use permits fluidized bed expansion that is normally less than 10%. These design concepts prevent significant top to bottom mixing of the solids where the adsorbent bed is continuously replenished in each stage by entry of adsorbent at the top of the bed while withdrawal occurs from the bottom of the bed. Liquid phase fluidization is extremely smooth through the suggested bed expansion range. One adsorbent configuration includes the use of spherical adsorbent particles, with the original adsorbent and makeup being predominantly greater than 10 Tyler mesh and less than 45 Tyler mesh, but with a particle diameter range of 1.5 mm for more than 96 percent of the particles.

92 [0046] For hydrocarbon feedstocks, the adsorbent in each of the adsorbent stages 110-118 is a particulate selective adsorbent, such as alumina containing zeolites. However, any selective adsorbent may be used where the impurities and the desired treated liquid product have different ~~affinites~~ affinities for the adsorbent. For use with dirty feeds, such as coker naphtha feeds, a relatively small guard bed filled with a selective adsorbent may be used to remove the non-regenerable silicon compounds and prevent them from interfering with long term performance of the recirculating adsorbent. This was successfully demonstrated in the original pilot plant. The adsorbent particles are generally spherical and in a suitable narrow range from the 8 to 45 48 Tyler mesh range. A narrow size range, such as 16 X 20, 20 X 24, or 24 X 28 Tyler mesh is preferred for the original and makeup adsorbent in hydrocarbon feedstock applications.
